

**From:** Andy Rubin  
**To:** [-] Tim Lindholm.  
**Cc:** [-] .  
**Bcc:** [-] .  
**Subject:** Review.

Sent: 7/29/2005 2:14 PM.

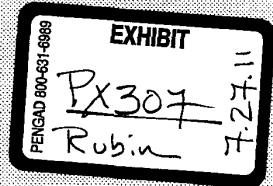
Tim,

The enclosed document starts to memorialize our thinking that was brainstormed at the meeting earlier this week.

Can you take a look and add any thoughts I missed? Once sufficient comment has been made I will proceed to work with busdev and start a proposal for Sun.

Thanks. Any word from Amy on conflict?

- andy



## CLDC licensing discussions with Sun

7/28/05 4:34 PM

### **Intent**

Google desires to create an internally developed Java Virtual Machine for use in its handset operating system (Project Android). As part of its wireless strategy, Google wishes to release the entire project, including the JVM, as Open Source to promote adoption of Google services on handsets by carriers and OEMs.

### **Confidentiality**

Google's acquisition of Android, and its plans in the wireless space are confidential. Especially sensitive are its plans to build an operating system and platform for phones. The project is part of Google's long-term strategy for wireless clients, and therefore will undoubtedly undergo a series of refinement as it approaches launch.

During our discussions with Sun related to Java, CLDC and Open Source, Google will need to disclose parts of it's strategy in order to gain Sun's support and agreement. Disclosure will happen only on a need to know basis, and all materials, both verbal and written, will be clearly marked as confidential.

### **Internally developed CLDC JVM**

The system takes advantage of an architecture that integrates major aspects of the JVM and Linux-based operating system. By combining and integrating Java directly into the operating system, the following differentiating capabilities are achieved:

- Extremely small footprint
- Optimal code sharing
- Support of multiple language bindings
- Tight integration and shared core for multi-language support
- Support for instantaneous startup
- Support for simultaneous execution of multiple .jar files
- Support for class loading and unloading

- Integrated OS support for memory management, resource allocation
- Lightweight native code bindings
- Standards compliant
- Open Source-able

### **Desire**

- Google would like to work with Sun to conceive of and agree to a license that enables Google to release to the Open Source community, under a license of its own choosing, its internally developed CLDC based JVM. Google would like to achieve this goal with Sun's blessing and cooperation.
- Google does not foresee the necessity to license or redistribute any software from Sun.
- Google desires to be able to call the resulting work Java.

### **Requirements**

- Google needs a TCK license.
- We propose the Android product must pass the TCK on reference design before release to open source community. OEM licensees must pass TCK again on shipping product.
- OEM pays standard Java royalty to be negotiated by OEM and Sun.

### **Known Issues**

- Shared part?
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7/28/05 4:34 PM

7/28/05 4:34 PM